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Systematic and faunistic data on Neotropical Cochylini, with description of new species. Part 3
(Lepidoptera: Tortricidae)

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Systematic and faunistic data on Neotropical Cochylini, with description of new species. Part 3 (Lepidoptera: Tortricidae)

J. Razowski & V. O. Becker

Abstract

16 new species (*Maricaona maricaonana* Razowski & Becker, sp. n., *Phalonidia mayarina* Razowski & Becker, sp. n., *Saphenista turguinoa* Razowski & Becker, sp. n., *Saphenista rosariana* Razowski & Becker, sp. n., *Saphenista simillima* Razowski & Becker, sp. n., *Saphenista cubana* Razowski & Becker, sp. n., *Platphalonidia holguina* Razowski & Becker, sp. n., *Platphalonidia remissa* Razowski & Becker, sp. n., *Lasiothyris guanana* Razowski & Becker, sp. n., *Lasiothyris subsorbia* Razowski & Becker, sp. n., *Lasiothyris puertoricana* Razowski & Becker, sp. n., *Spinipogon virginanus* Razowski & Becker, sp. n., *Eugnosta fraudulenta* Razowski & Becker, sp. n., *Lorita insulicola* Razowski & Becker, sp. n., *Aethes pinara* Razowski & Becker, sp. n., *Cochylis sierramaestrae* Razowski & Becker, sp. n.) and one new genus (*Maricaona* Razowski & Becker, gen. n.) are described. The material studied was collected chiefly in Cuba, Puerto Rico, and Ecuador. The data on distribution and morphology of 3 further (*Saphenista semistrigata* Forbes, 1931, *Mimeugnosta particeps* Razowski, 1986, *Lorita lepidulana* (Forbes, 1931)) species are provided.

KEY WORDS: Lepidoptera, Tortricidae, Cochylini, distribution, new taxa, Neotropical.

Datos sistemáticos y faunísticos sobre Cochylini Neotropicales, con descripción de nuevas especies. Parte 3 (Lepidoptera: Tortricidae)

Resumen

Se describen 16 nuevas especies (*Maricaona maricaonana* Razowski & Becker, sp. n., *Phalonidia mayarina* Razowski & Becker, sp. n., *Saphenista turguinoa* Razowski & Becker, sp. n., *Saphenista rosariana* Razowski & Becker, sp. n., *Saphenista simillima* Razowski & Becker, sp. n., *Saphenista cubana* Razowski & Becker, sp. n., *Platphalonidia holguina* Razowski & Becker, sp. n., *Platphalonidia remissa* Razowski & Becker, sp. n., *Lasiothyris guanana* Razowski & Becker, sp. n., *Lasiothyris subsorbia* Razowski & Becker, sp. n., *Lasiothyris puertoricana* Razowski & Becker, sp. n., *Spinipogon virginanus* Razowski & Becker, sp. n., *Eugnosta fraudulenta* Razowski & Becker, sp. n., *Lorita insulicola* Razowski & Becker, sp. n., *Aethes pinara* Razowski & Becker, sp. n., *Cochylis sierramaestrae* Razowski & Becker, sp. n.) y un nuevo género (*Maricaona* Razowski & Becker, gen. n.). El material estudiado fue colectado, principalmente, en Cuba, Puerto Rico y Ecuador. Se proporcionan los datos sobre la distribución y morfología de tres especies adicionales (*Saphenista semistrigata* Forbes, 1931, *Mimeugnosta particeps* Razowski, 1986, *Lorita lepidulana* (Forbes, 1931)).

PALABRAS CLAVE: Lepidoptera, Tortricidae, Cochylini, distribución, nuevas taxa, Neotropical.

Introduction

The present paper constitutes third part of the series devoted to the systematics and faunistics of the Neotropical Cochylini (Tortricinae). First part (RAZOWSKI & BECKER, 2002) contained the descriptions of 36 new species and the data on further 26 species from Brazil and Ecuador; part two

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(RAZOWSKI & BECKER, 2007 [in press]) comprised the description of 32 new species, two new genera and the remarks on further 19 species from Mexico, Ecuador and Brazil. Now we publish on the insular cochyliines; the material is chiefly from Cuba, Puerto Rico, and Virgin Island. This paper comprises the description of 16 new species and the data on three known species. The cochyliines from the studied islands belong to the following eight genera: *Maricoana* Razowski & Becker, gen. n., *Phalonidia* Le Marchand, 1933, *Saphenista* Walsingham, 1914, *Platphalonidia* Razowski, 1985, *Lasiothyris* Meyrick, 1917, *Spinipogon* Razowski, 1967, *Lorita* Busck, 1939, and *Cochylis* Treitschke, 1829. Similarly as in the continental parts of the Neotropical region *Saphenista* belongs to the genera most abundant in species. Wide distribution of *Phalonidia*, *Lasiothyris* and *Platphalonidia* in this region is also confirmed.

The paper is based on the collection of the junior author (with only two exceptions). The holotypes of the new described species and other material studied are preserved in the Becker Collection. It will be eventually transferred to one of the museums in Brazil. One holotype is from the American Museum of Natural History, New York. Representatives of a few species originally from the Becker Collection have been kindly donated to the Institute of Systematics and Evolution of Animals, PAS, Kraków, Poland.

Abbreviations

AMNH - American Museum of Natural History

Brit. - British

GS - genitalia slide

INRA - Institut National de la Recherche Agronomique

Maest. - Maestre

Sier. - Sierra

Stgo - Santiago

[] - the numbers in brackets are the entry numbers of the specimens in the register book of the Becker Collection.

Note - the number given in descriptions of the labial palpi indicate the proportion of their total length to the horizontal diameter of eye.

Systematic part

Maricaona Razowski & Becker, gen. n.

Type-species: *Maricaona maricaonana* Razowski & Becker, sp. n.

Description: Venation: in forewing R4-R5 connate or strongly approaching to one another at median cell; R5 to apex; M3-CuA1 stalked to 1/4; CuA2 opposite R1. In hindwing Rr-M1 stalked to beyond middle; M2 far from base of M2-M3 which are stalked to about 1/4.

Male genitalia: Tegumen short, broad; base of socii rather separate from tegumen, hairy; socii without free lobes but with slender apical processes; vinculum consisting of pair of broad terminally arms; valva broad with well developed costa; sacculus long, with free termination; transtilla large, extending dorsally, with short median, spiny part; juxta small, simple; aedeagus very broad; caulis postmedian; coecum penis short, broad; cornuti absent.

Female genitalia: Ovipositor short; papilla analis small; apophyses slender; posterior portion of sterigma short; cup-shaped part broad; colliculum ill-defined; ductus bursae shorter than corpus bursae, with numerous longitudinal folds extending laterally to middle of corpus bursae; accessory bursa originating just before middle of the latter.

Diagnosis: Facies and transtilla resembling some representatives of *Henricus* Busck, 2943; socii without free portions, with apical processes similar to *Mourecochylis* Razowski & Becker, 1983. Tentatively placed in the *Phalonidia*-group of genera.

Etymology: The generic name refers to the name of the type-locality of the type species.

***Maricaona maricaonana* Razowski & Becker, sp. n. (Figs 49)**

Holotype male: "Puerto Rico, Maricao, 770 m, 12-VII-1987, V. O. Becker"; [67639]; GS 42 Mar. Paratype female with identical label, GS 43 Mar.

Description: Wing span 14.5 mm. Head brownish, labial palpus missing; thorax brown-grey, tegula darker than median portion. Forewing slender, expanding terminad; costa straight to middle, then slightly bent; termen moderately oblique, almost straight. Ground colour white preserved in form of large postmedian blotch at costa; proximal half of wing brownish grey with brown, diffuse strigulation; dorsal third of wing brownish white with brown-grey suffusions and spots; grayish suffusion beyond end of median cell marked by rust red terminal spots, Cilia grayish. Hindwing grey, paler basally; cilia grey.

Female (wing span ca 16 mm): head white, labial palpus 1.5; thorax whitish; tegula brownish. Colouration darker than in male; brown and rust red spots in proximal and terminal parts of wing; refractive spots and groups of erect scales present.

Male genitalia (Figs 1, 2): as described for the genus.

Female genitalia (Fig. 37): as described for the genus.

Diagnosis: The only species of the genus; cf. its diagnosis.

Etymology: The specific epithet refers to the name of the country.

***Phalonidia mayarina* Razowski & Becker, sp. n. (Fig. 50)**

Holotype male: "Cuba: Holguin, Mayari, 400 m, 12-VII-1990, V. O. Becker"; [72538]; GS 147 Mar.

Description: Wing span 18.5 mm. Head cream; labial palpus ca 1.3; thorax cream tinged with yellow-brown. Forewing not expanding terminally; costa and termen rather straight. Ground colour cream preserved along edges of markings; remaining surface suffused with brownish yellow; dots and strigulae brown. Markings: dorsal blotch at 1/3 of dorsum obliquely towards middle of median cell accompanied by brownish spot at mid-costa; dorsal blotch yellow brown with blackish marks; blackish spot at tornus; subterminal fascia fusing with blotch between end of median cell and tornus. Cilia cream. Hindwing brownish grey; cilia similar.

Male genitalia (Figs 3, 4): Base of socii broad; arms of vinculum membranously connected with one another; median part of transtilla long, slender; valva slender with basal portion of costa strongly convex; sacculus short, broad, rounded terminally; aedeagus large, strongly curved, with slender ventral termination; caulis postmedian; cornutus very large.

Female not known.

Diagnosis: Facies similar to *Saphenista cubana* but *mayarina* without strong dorsal blotch; closely allied with *Cochylis parallelana* Walsingham, 1879 from California, USA but *mayarina* distinguished by presence of cornutus.

***Saphenista turguinoa* Razowski & Becker, sp. n. (Fig. 51)**

Holotype male: "Cuba: Santiago, Turguino, 470 m, 27/9-VII-1990, V. O. Becker" [73383]; GS 138 Mar.

Description: Wing span 8 mm. Head cream, frons white; labial palpus 1.3; thorax brownish cream, base of tegula darker. Forewing not expanding terminad; costa weakly convex; termen slightly oblique, straight beneath apex. Ground colour cream hardly mixed with brownish yellow, with browner strigulation. Markings brownish yellow consisting of costal part of basal blotch, dorsopost-basal marking; median fascia divided into three parts accompanied by tornal marking; subterminal slender fascia reaching tornal third of termen. Cilia whitish cream. Hindwing pale brownish grey, paler basally than on periphery; cilia concolorous with median part of wing.

Male genitalia (Figs 5, 6): Socii large, rather broad; vinculum without lateral processes; valva

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and sacculus simple; median part of transtilla long with slender terminal parts; aedeagus about twice longer than median part of transtilla; cornutus strong, bent.

Female not known.

Diagnosis: Allied with *S. multistrigata* Walsingham, 1914 from Veracruz, Mexico but *turginoa* with short aedeagus and strong cornutus.

Etymology: The name refers to the type locality.

***Saphenista rosariana* Razowski & Becker, sp. n. (Fig. 52)**

Holotype male: "Cuba: Pinar Rio, Sierra Rosario, 5-15-VI-1990, 400 m, V. O. Becker"; [71535]; GS 159 Mar.

Description: Wing span 7.5 mm. Head cream, thorax with slight brownish hue; labial palpus ca 1.3. Forewing slender, broadest postmedially; costa gradually convex; termen rather straight, oblique. Ground colour cream; suffusions pale brownish cream, dots browner. Markings pale brownish cream with slight olive hue consisting of weak dorsopostbasal mark, broad median fascia consisting of three elongate spots accompanied by browner spot at mid-costa; distinct, uniformly broad sub-terminal fascia, and slender fascia extending from end of termen towards end of median cell. Cilia cream. Hindwing pale brownish cream; cilia paler.

Variation: Paratypes with paler ground colour and more distinct markings.

Male genitalia (Figs 7, 8): Socii fairly large; vinculum simple; sacculus simple, small; median part of transtilla long, slender; juxta small; aedeagus slender with short ventral termination; cornutus long, swung. Abdominal scent organ in form of two short lobes of 7th sternite.

Female (Fig. 38): Papilla analis proportionally large; sterigma weakly sclerotized, with short cup-shaped part; ductus bursae broad, corpus bursae tapering from middle proximally; ductus seminalis apical.

Diagnosis: This species is allied with *semistrigata* and *cubana* but *rosariana* differs from them in having well developed abdominal scent organs, longer aedeagus and shorter cornutus. A similar scent organ occurs also with *S. imaginaria* Razowski & Becker, 1986 from Costa Rica and Brazilian (from Santa Catarina) *S. naufraga* Razowski & Becker, 1982. *S. simillima* differs from all these species in its long aedeagus. Female genitalia similar to *S. onychina* Razowski & Becker, 1986 from Costa Rica and some allied species but *rosariana* with ductus bursae shorter and broader. From *S. delifrobursa* Razowski, 1992 from Costa Rica *rosariana* differs in apical, not lateral, position of ductus seminalis.

Etymology: The specific name refers to the type locality.

***Saphenista semistrigata* Forbes, 1931**

Material examined: Four specimens from Patillas (590 m, VII-1987) and 2 males and one female from Cayey (450 m, 2-VIII-1987), and 2 from Maricao 770 m, 12-VIII-1987, Puerto Rico.

Redescription of genitalia is as follows:

Male genitalia (Figs 9, 10): Socii long; vinculum without lateral processes; valva slender; sacculus simple, small; median part of transtilla long with long terminal processes directed laterally and slight apical concavity; aedeagus slender with long ventral termination; coecum penis very short; cornutus long, curved. Abdominal scent organ absent.

Female genitalia (Fig. 39): Papilla analis proportionally large; cup-shaped part of sterigma shallow; ductus bursae sclerotized; with base of accessory ductus well sclerotized, originating medially; corpus bursae slightly longer than ductus bursae with proximal ductus seminalis.

Remarks: Facies similar to *S. lacteipalpis* (Walsingham, 1891) from St. Vincent, West Indies but *semistrigata* with strongly sclerotized ductus bursae and basal part of ductus of accessory bursa, long terminal processes of median part of transtilla, and long aedeagus. For the differences to *simillima* see diagnosis of that species.

***Saphenista simillima* Razowski & Becker, sp. n. (Fig. 53)**

Holotype female: "Cuba: Stgo. Sier. Maestra P. Cuba, 31-VII-1990, 1500 m, V. O. Becker"; [73591]; GS 114 Mar. Paratypes, 3 males and 2 females with identical labels.

Description: Wing span 9 mm. Head cream; labial palpus ca 1.5, tinged ochreous basally; thorax brownish cream. Forewing slender, not expanding terminad; median portion of costa straight; termen oblique, almost straight. Ground colour whitish cream with some pale brownish cream suffusions and brownish dots. Markings yellowish brown consisting of spots at base, middle and subterminal (extending in a slender, paler fascia to termen); dorsobasal marking slender, reaching median cell; dorsal blotch and a diffuse blotch at end of median cell pale yellowish brown with some brown dots; some concolorous dots along termen. Cilia cream. Hindwing pale brownish, transparent in basal half; cilia pale brownish.

Variation: Ground colour of forewing varies from cream to ferruginous cream with distinct ferruginous strigulation. Markings brownish to pale ferruginous brown.

Male genitalia (Figs 11, 12): Base of socii large, terminal parts proportionally short; vinculum simple; valva moderately broad, curved upwards; sacculus simple, short; median part of transtilla large; aedeagus slender, bent, with short ventral termination; cornutus moderate, bent.

Female genitalia (Fig. 40): Papilla analis rather slender; cup-shaped part of sterigma short, somewhat asymmetric; ductus bursae in major part sclerotized; base of ductus of accessory bursa slender, sclerotized; corpus bursae small, membranous, minutely spined; ductus seminalis proximal.

Diagnosis: Closely allied with *semistrigata* but *simillima* distinguished by brown dorsal blotch of forewing, slender, sclerotized basal part of ductus of accessory bursa, and short ventroterminal part of aedeagus.

Etymology: The name refers to great genital similarity to *semistrigata*.

***Saphenista cubana* Razowski & Becker, sp. n. (Fig. 54)**

Holotype male: "Cuba: Stgo. Sier. Maestra P. Cuba 1500 m, 31-VII-1990, V. O. Becker"; [73589]; GS 120 Mar. Paratypes two males and two females, three with same label and one from Holguin, Pin, Mayari, 640 m, VII-1990.

Diagnosis: Wing span. 13 mm (in paratypes 8-9 mm). Head grayish cream, thorax darker; labial palpus ca 1.3, whitish. Forewing hardly expanding terminally; costa almost straight; termen weakly oblique, almost straight. Ground colour cream; suffusions ochreous and pale ochreous brown, dots brownish. Postbasal fascia diffuse, yellowish brown; median fascia consisting of concolorous costal blotch and large blackish dorsal blotch; subapical marking weak, brownish yellow, subterminal markings indistinct except for blackish median spot. Cilia concolorous with ground colour. Hindwing whitish tinged with brownish grey, pale basally; cilia similar.

Variation: Ground colour of forewing often whitish, glossy; suffusions more or less dark; markings variable in shape and colour, especially the dorsal blotch.

Male genitalia (Figs 13, 14): Socii large; vinculum simple; valva proportionally broad; sacculus slender, short; median part of transtilla slender with large terminal processes; aedeagus slender with caulis median; cornutus long, curved near base, not swung. Abdominal scent organ absent.

Female genitalia (Fig. 41): Papilla analis broad; cup-shaped part of sterigma short, concave posteriorly; ductus bursae broad, with longitudinal, rather weakly sclerotized folds and anterior well sclerotized base of accessory bursa; corpus bursae with median broadening and apical ductus seminalis.

Diagnosis: Closely allied with *semistrigata* but *cubana* distinguished by presence of dark dorsal blotch of forewing and straight, long cornutus; from *simillima cubana* differs in having broad ductus bursae (all these three species with sclerotized basal part of ductus seminalis).

Etymology: The specific epithet refers to the name of island where there is the type locality.

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***Platphalonidia holguina* Razowski & Becker, sp. n.** (Fig. 55)

Holotype male: "Cuba: Holguin Mayari, 400 m, 12-VII-1990, V. O. Becker", [72540]; GS 128 Mar.

Description: Wing span 7 mm. Head white; labial palpus ca 1.5; thorax grayish white. Forewing slightly expanding terminad; costa straight; termen weakly oblique, straight. Ground colour whitish, suffusions brownish. Median fascia yellowish brown, brown subdorsally; subterminal fascia broad, diffuse. Cilia worn, concolorous with ground colour. Hindwing whitish basally, mixed with brownish otherwise; cilia whitish.

Male genitalia (Figs 15, 16): Valva broad to before middle, then slender, curved upwards; ventral prominence of sacculus proportionally broad; median part of transtilla broad basally, with outwardly curved arms of bifurcation; cornutus large.

Female not known.

Diagnosis: Allied with *P. subolivacea* (Walsingham, 1897) from Danish West Indies but *holguina* with long cornutus, large median part of transtilla and long arms of its bifurcation.

Etymology: The specific epithet refers to the type locality.

***Platphalonidia remissa* Razowski & Becker, sp. n.** (Fig. 56)

Holotype male: "Cuba: Holguin Mayari, 400 m, 12-VII-1990, V. O. Becker"; [72030]; GS 129 Mar.

Description: Wing span 8.5 mm. Head whitish; labial palpus 1.3, pale brownish cream; thorax grayish cream. Forewing weakly expanding terminad; costa straight; termen slightly convex. Ground colour whitish grey in basal half of wing suffused with grey, in distal third with brownish; dots brownish. Markings pale brownish: median fascia convex, subterminal fascia slender. Cilia whitish. Hindwing brownish white basally brownish on periphery; cilia concolorous with wing base.

Male genitalia (Figs 17, 18): Valva broad in basal one-third, then slender, tapering terminally; ventral prominence of sacculus small; median part of transtilla stout, deeply incised apically; cornutus large.

Female not known.

Diagnosis: Allied with *subolivacea* and *holguina* but *remissa* distinct by broad, short median part of transtilla and deep bifurcation of its terminal portion.

Etymology: The specific name defers to the facies of the moth; Latin: *remissa* - placid.

***Lasiothyris guanana* Razowski & Becker, sp. n.** (Fig. 57)

Holotype male: "Brit. Virgin Is: Guana I, 0-80 m, 9-23-VII-1987, V. O. Becker & S. E. Miller"; [66728]; GS 137 Mar.

Description: Wing span 7 mm. Forewing not expanding terminally; costa weakly convex; termen moderately oblique, slightly convex. Ground colour white, basal part of costa suffused with brownish, terminal area of wing with pale ochreous yellow. Markings brownish yellow consisting of costal half of median fascia and subterminal fascia. Cilia whitish. Hindwing brownish white; cilia paler.

Male genitalia (Figs 19, 20): Socii broad; arms of vinculum connected by means of a membrane; basal portion of valva broad, terminal portion slender, tapering posteriorly; sacculus simple; median part of transtilla tapering apically; juxta moderate; aedeagus extremely long, with long ventral termination; coecum penis broad; cornutus very long.

Female not known.

Diagnosis: Allied with *L. gravida* Razowski, 1986 from Mexico, Vera Cruz and *L. luminosa* (Razowski & Becker, 1983) from Santa Catarina, Brazil but *guanana* with longer aedeagus and slen-

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der socius; from *L. megapenis* Razowski & Becker, 1993 Minas Gerais, Brazil *gounana* differs mainly in straight cornutus.

Etymology: the specific name refers to the type locality, Island Guana.

***Lasiothyris subsorbia* Razowski & Becker, sp. n. (Fig. 58)**

Holotype male: "Cuba: Stgo. Sier. Maestr P. Cuba, 1500, 31-VII-1990, V. O. Becker"; [73594]; GS 145 Mar.

Description: Wing span 10 mm. Head cream; labial palpus ca 1.3 tinged with pale ochreous proximally; thorax cream ochreous. Forewing slightly expanding terminally, broadest beyond middle; costa straight; termen moderately oblique, hardly convex. Ground colour ochreous cream with slight ferruginous suffusions and somewhat darker strigulation. Markings ferruginous; median fascia from before mid-dorsum to mid-costa; subterminal fascia directed towards mid-termen. Cilia concolorous with ground colour. Hindwing whitish hardly mixed with brownish on periphery; cilia whitish.

Male genitalia (Figs 21, 22): Basal part of socii broad; valva broad basally, slender in posterior half; median part of transtilla broad basally where elongate-triangular, very slender in terminal third; aedeagus large; cornutus missing. Scent organ of seventh sternite with short base and slender arms.

Female not known.

Diagnosis: Allied with *L. sorbia* Razowski & Becker, 1993 from the Federal District of Brazil but in *suborbia* basal portion of median part of transtilla gradually tapering posteriorly, sacculus with reduced ventral termination, aedeagus longer, and abdominal scent organs preserved.

Etymology: The specific name refers to similarity with *sorbia*; Latin: *sub* - beneath.

***Lasiothyris puertoricana* Razowski & Becker, sp. n. (Fig. 59)**

Holotype male: "Puerto Rico: Maricao, 770 m 12-VIII-1987, V. O. Becker"; [67637]; GS 158 Mar. Paratype female, same label; GS 157 Mar.

Description: Wing span 9 mm. Head cream; labial palpus ca 1.3; thorax dirty cream. Forewing uniformly broad throughout; costa almost straight; termen oblique. Ground colour cream with indistinct pale ochreous suffusions. Markings light ferruginous consisting of remnants of median fascia and subterminal fascia accompanied by vestiges of median suffusion. Cilia cream. Hindwing with elongate apex, cream white slightly mixed with brownish on periphery; cilia cream.

Female darker than male, with stronger suffusions and markings.

Male genitalia (Figs 23, 24): Base of socii large, terminal free parts slender; valva proportionally slender, strongly tapering terminally beyond middle; sacculus to become middle of valva, with ventral termination; base of median part of transtilla broad, posterior half slender; aedeagus large; cornutus vestigial. Abdominal scent organ on seventh sternite, short, with small, rounded lateral lobes.

Female genitalia (Fig. 42): Cup-shaped part of sterigma large, broadest subterminally; ductus bursae proportionally short, with large mediolateral sac and dense longitudinal folds in proximal half; corpus bursae rounded, with minute spinulation.

Diagnosis: Allied with Brazilian *L. ficta* Razowski & Becker, 1983 but *ficta* distinguished by simple sacculus, short median part of transtilla and large lateroterminal processes of abdominal scent organ.

Etymology: The species name refers to the country of origin of this species.

***Spinipogon virginanus* Razowski & Becker, sp. n. (Fig. 60)**

Holotype male: "Brit. Virgin Is: Guana, X-1989, V. O. Becker"; [71034]; GS 126 Mar. Paratype female, same label; GS 127 Mar.

Description: Wing span 9 mm. Head cream; labial palpus 1.3, brownish cream; thorax brownish

cream. Forewing not expanding terminally; costa and termen weakly convex. Ground colour whitish cream with weak yellowish suffusions; dots and strigulae brownish. Markings yellowish brown, browner at costa, mixed with brownish grey at dorsum; median fascia divided into three parts; subterminal fascia slender; mediotornal blotch oval, with some brown-black dots; dots along termen brownish yellow. Cilia cream with some pale yellowish brown divisions. Hindwing pale brownish grey, darker on periphery; cilia cream, tinged with brownish grey in apical portion.

Variation: Female darker than male with broad fascia consisting of pale rust brown costal and median spots and large blackish grey dorsal blotch. Hindwing brownish, cilia paler.

Male genitalia (Figs 25, 26): End parts of vinculum fused with one another; valva long, slender; sacculus with wedge-shaped postbasal process; median part of transtilla large, with long apical bifurcation devoid any spines; juxta large; aedeagus arched, with sharp ventral termination.

Female genitalia (Fig. 43): Ovipositor moderately long; apophyses slender, fairly long; papillae anales slender; posterior edges of postostial sterigma well sclerotized, anteostial part rounded; cup-shaped part short, deeply concave in middle posteriorly; ductus bursae slender, proportionally long; corpus bursae with very large wart strengthened by numerous spines.

Diagnosis: *S. virginana* is allied with Brazilian *S. atrox* Razowski & Becker, 1983 (from Parana) and Costarican *S. elaphroterus* (Razowski & Becker, 1986) but *virginanus* characterizes with broad aedeagus and long bifurcation of transtilla; in *elaphroterus* termination of sacculus is rounded and in *L. studiosus* (Razowski & Becker, 1993) from Guerrero, Mexico antrum is shorter and ductus bursae longer.

Etymology: The specific epithet is based on the name of Virgin Island where there is the type locality.

Mimeugnosta particeps Razowski, 1986

Material examined: A pair from Cuba (Pinar Rio, Vinales, 27-IX-1989). The female was until now unknown thus its genitalia (Fig. 44) are described and illustrated. Papilla analis slender; apophyses proportionally long, apophyses anteriores with apical broadenings; cup-shaped part of sterigma sclerotized, elongate, with proximal corners rounded; ductus bursae with longitudinal sclerotized folds; corpus bursae without larger sclerites; ductus of accessory bursa originating in distal portion of ductus bursae.

Mimeugnosta cf. *chascax* Razowski, 1994

This species was described from Costa Rica. Our insular specimen is from Santiago, Cuba (Turquino, 470 m, 27/9-VII-1990) and shows slight differences to the type (straight distal part of aedeagus, curved base of cornutus, the presence of rudimentary abdominal scent organs).

Eugnosta fraudulenta Razowski & Becker, sp. n. (Fig. 61)

Holotype male: "Br.[itish] W.[est] Indies"; GS 10555; coll. AMNH. Paratypes: one male labeled "Honduras: Siguatopeque, VI-17-1979, Malaise trap, J. A. Chemsal, M. Kichelbacker, W.W. Middlekauff collectors", coll. University of Berkeley, California; two males: "Cuba: Holguin, Pin. Mayari, 640 m, VII-1990, V. O. Becker"; [72250]; GS 151 and 152 and one female with label "Cuba: Holguin, Pin. Mayari, 640 m, VII-1990, V. O. Becker"; [720228]; GS 150 Mar.

Description: Wing span. 13 mm (paratypes: males 9 mm, female 14 mm). Head brownish white; labial palpus over 2, more brownish grey; thorax pale brownish grey. Forewing not expanding terminally; costa rather straight; termen hardly convex, moderately oblique. Ground colour whitish with brownish grey suffusions and brown dots. Markings in form of dark brown median blotch and brown-grey, in costal part dark brown, white edged subterminal blotch. Cilia brownish grey. Hindwing whitish tinged with grey-brown (in female pale brownish grey); cilia whitish.

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Male genitalia (Figs 27, 28): Terminal portion of tegumen broadening, rounded; socius slender, long; basal half of valva broad, remaining portion distinctly tapering terminally; sacculus moderate; median part of transtilla long, slender; aedeagus stout; cornutus large.

Female genitalia (Fig. 45): Papilla analis slender, proportionally long; cup-shaped part of sterigma short, with lateral corners rounded; ductus bursae slender distally, broad in median and proximal portions where numerous folds and spines; corpus bursae in major part densely spined; both ductus bursae and accessory bursa originating near middle of corpus bursae.

Diagnosis: Similar to Brazilian (from the Minas Gerais) *Eugnosta tenacia* Razowski & Becker, 1994 but *fraudulenta* with small, apical portion of tegumen (similar to *E. bimaculana* (Robinson, 1869) from the U.S.A.) and much broader aedeagus provided with broad ventral termination.

Etymology: The specific epithet refers to characters of the genitalia; Latin: *fraudulenta* - delusive.

***Lorita insulicola* Razowski & Becker, sp. n. (Fig. 62)**

Holotype male: "Brit. Virgin Is: Guana I: 0 - 80 m, 9-23-VII-1987, V. O. Becker & S. E. Miller," [66730]; GS 133 Mar. Paratype female, same label, GS 134 Mar.; 3 males from Guadeloupe, Vieux-Habitants, Le Bouchu, 9-I-2006 (coll. ISEZ, donated by Dr. J. Etienne) and one paratype (coll. INRA).

Description: Wing span 7.5 mm. Head cream; labial palpus ca 1.5; thorax cream tinged with brownish. Forewing uniformly broad throughout; costa almost straight; termen oblique. Ground colour cream with indistinct yellowish admixture and ochreous cream suffusions; basal one-third of costa brownish; some brownish dots along dorsum and in terminal portion of wing. Costal portion of median fascia brownish almost connected with dorsal blotch; the latter yellow-brown, brown-grey at wing edge and proximally; subterminal fascia pale yellowish brown. Cilia cream with brownish suffusions. Hindwing cream tinged with brown on periphery; cilia pale brownish cream.

Variation: Female darker than male, with more brownish ferruginous markings and slightly paler suffusions.

Male genitalia (Figs 29, 30): Terminal part of tegumen and socii typical of the genus; valva elongate, proportionally slender, tapering from middle to apex, with costa weakly convex at middle; sacculus slender, half the length of valva; median part of transtilla strong; vinculum and aedeagus long.

Female genitalia (Fig. 46): Cup-shaped part of sterigma slightly tapering and rounded proximally, postostial part delicate; ductus bursae short, with median origin of accessory bursa; corpus bursae piriform, with folds.

Biology: Bread from flowers of *Magnifera indica* (Anacardiaceae).

Distribution: Known from British Virgin Islands and Guadalupe.

Diagnosis: Allied with Californian *L. baccharivora* Pogue, 1988 but *insulicola* with weak, median convexity of costa of valva and long, slender aedeagus; from another insular species, *lepidulana*, *insulicola* differs in slenderer valva with costa weakly convex and in rounded proximal portion of the cup-shaped part of sterigma.

Etymology: The specific epithet refers to insular distribution; Latin: *insula* - island.

***Lorita lepidulana* (Forbes, 1931)**

Material examined: One pair from Patillas, Puerto Rico (590 m, VIII-1987); one female from Santiago, Turguino, Cuba (470 m, 27/9-VII-1990), and one male from St. Thomas, Virgin Island, USA (300 m, 25-30-VII-1987).

L. lepidulana was described from Puerto Rico. The genitalia of the Puerto Rican specimens are characterized as follows.

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Male genitalia (Figs 31, 32): Socii forming a pair of rigid, slender processes; vinculum arms large fused with one another ventrally; valva broad with costa convex before middle, dorsocaudal portion forming a small lobe and numerous specialized scales of disc; sacculus simple, longer than half the length of valva; median part of transtilla strong; juxta oval; aedeagus typical of the genus.

Female genitalia (Fig. 47): Postostial part of sterigma slender, cup-shaper part large, without dorsal concavity as with *L. scarificata* (Meyrick, 1917); ductus bursae twice longer than cup-shaped portion of sterigma, with longitudinal sclerites and postmedian origin of accessory bursa; corpus bursae with folds and minute thorns.

***Aethes pinara* Razowski & Becker, sp. n. (Fig. 63)**

Holotype male: "Cuba: Pinar Rio, Sierra Rosario, 4-6-X-1989, 400 m, V. O. Becker"; [70680]; GS 153 Mar. Paratype female, same label; GS 154 Mar.

Description: Wing span 8 mm. Head and thorax white; labial palpus 1.5. Forewing not expanding terminally; costa bent near middle, otherwise straight; termen straight, oblique. Ground colour whitish; base of costa suffused with brownish. Markings brown-yellow with a few brown dots: dorsobasal blotch slender; median fascia consisting of slender costal part and postmedian spot at dorsum; subapical spot vestigial; terminal fascia weak. Cilia white. Hindwing whitish tinged with yellowish terminally. Cilia white.

Variation: Female (9 mm) with ground colour yellowish white and markings stronger ferruginous brown.

Male genitalia (Figs 33, 34): Valva broad proximally, tapering from the end of sacculus, with weakly oblique caudal edge, terminating in a short, curved thorn like process; ventral edge of sacculus almost straight; median part of transtilla slender, tapering terminad; aedeagus large, simple; one spine like cornutus and a large thorny plate in vesica.

Female genitalia (Fig. 48): Sterigma proportionally short, with pair of submedian lobes posteriorly; ductus bursae in major part distinctly sclerotized; basal portion of ductus of accessory bursa sclerotized, curved, originating in basal portion of ductus bursae; corpus bursae with posterior lobe.

Diagnosis: Closely allied with two Mexican species *A. ignobilis* Razowski, 1994 from Durango and *A. sonorae* (Walsingham, 1884) from Sonora but *pinara* with almost straight caudal edge of valva, long aedeagus and cornutus; Jamaican *A. olibra* Razowski, 1994 differs from all the mentioned species in having slender distal half of valva and uniformly broad median part of transtilla.

Etymology: The specific name refers to the name of the type locality.

***Cochylis sierraemaestrae* Razowski & Becker, sp. n. (Fig. 64)**

Holotype male: "Cuba: Stgo. Sier. Maestra P. Cuba, 31-VII-1990, 1500 m, V. O. Becker"; [73593]; GS 123 Mar.

Description: Wing span 11 mm. Head cream; labial palpus ca 1.5 tinged with ferruginous to beyond middle; thorax cream ferruginous proximally. Forewing somewhat expanding terminally; costa almost straight; termen weakly oblique, straight. Ground colour yellowish cream suffused with ferruginous especially at wing base and beyond end of median cell; brown dots along costa and dorsum. Markings: broad chestnut brown fascia from mid-dorsum to mid-costa and much paler slender subterminal fascia almost reaching termen. Cilia cream. Hindwing slender, pale brownish grey; cilia similar.

Male genitalia (Figs 35, 36): Socii broad; arms of vinculum slender; valva broadest, strongly convex postbasally; sacculus slender, with very large, slightly curved process; median part of transtilla large, hook-shaped; aedeagus very long, curved, with slender ventral termination; coecum penis long.

Female not known.

Diagnosis: Allied with *Cochylis caulocatax* Razowski, 1984 from Venezuela and the U.S.A. but

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sierraemaestrae with larger, slightly curved process of sacculus and longer aedeagus with reduced lateral process.

Etymology: the specific name refers to the range Sierra Maestra.

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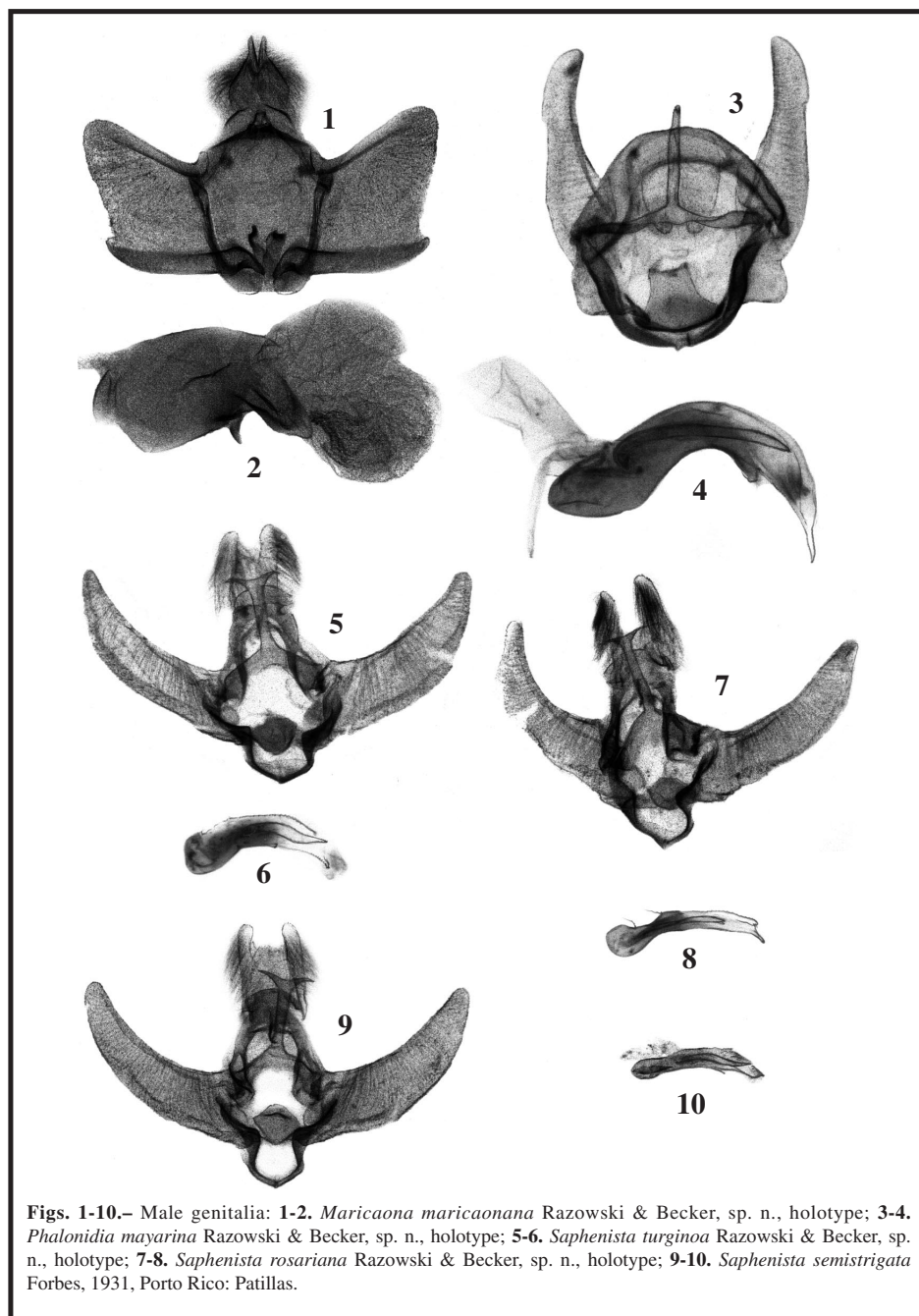
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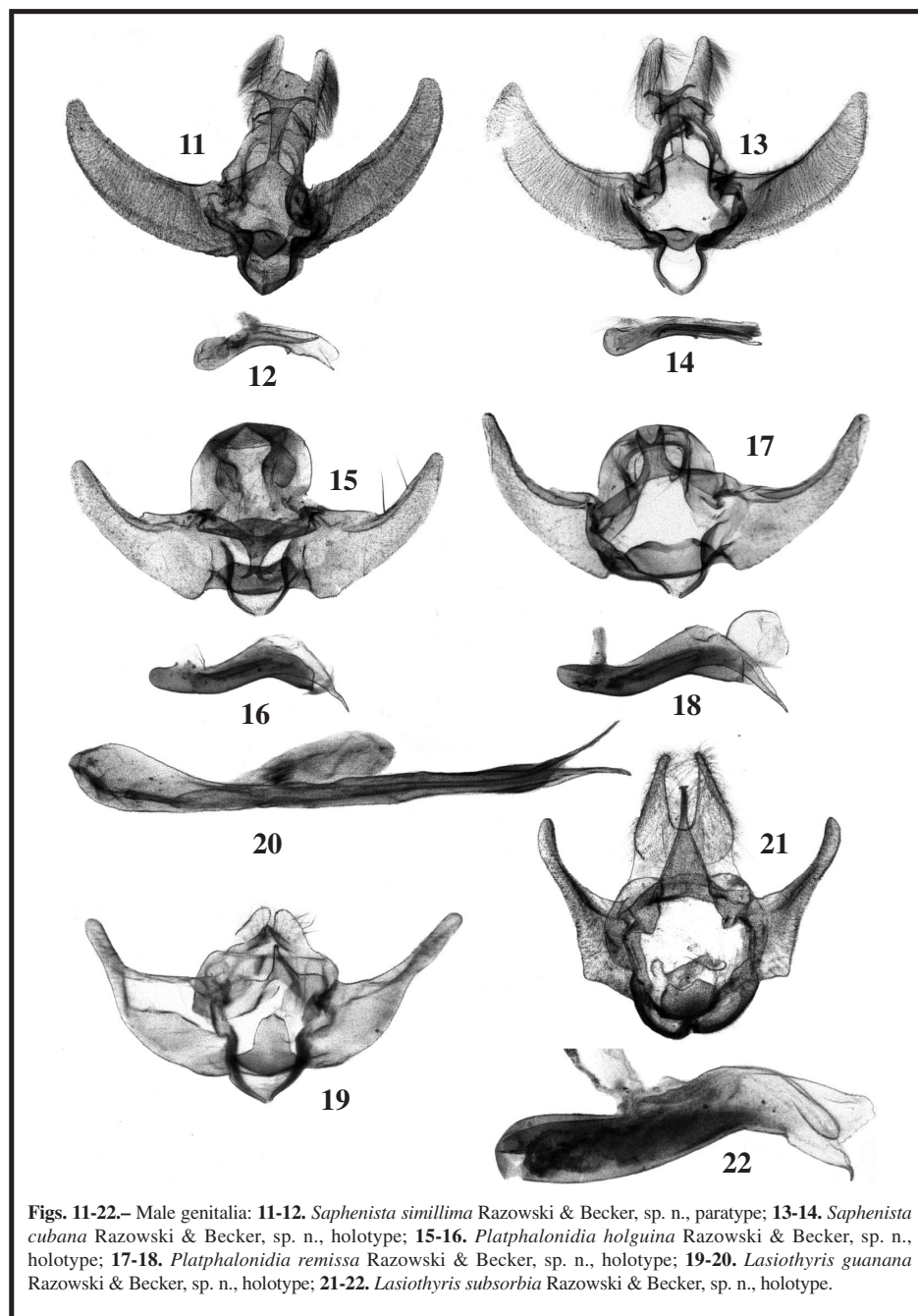
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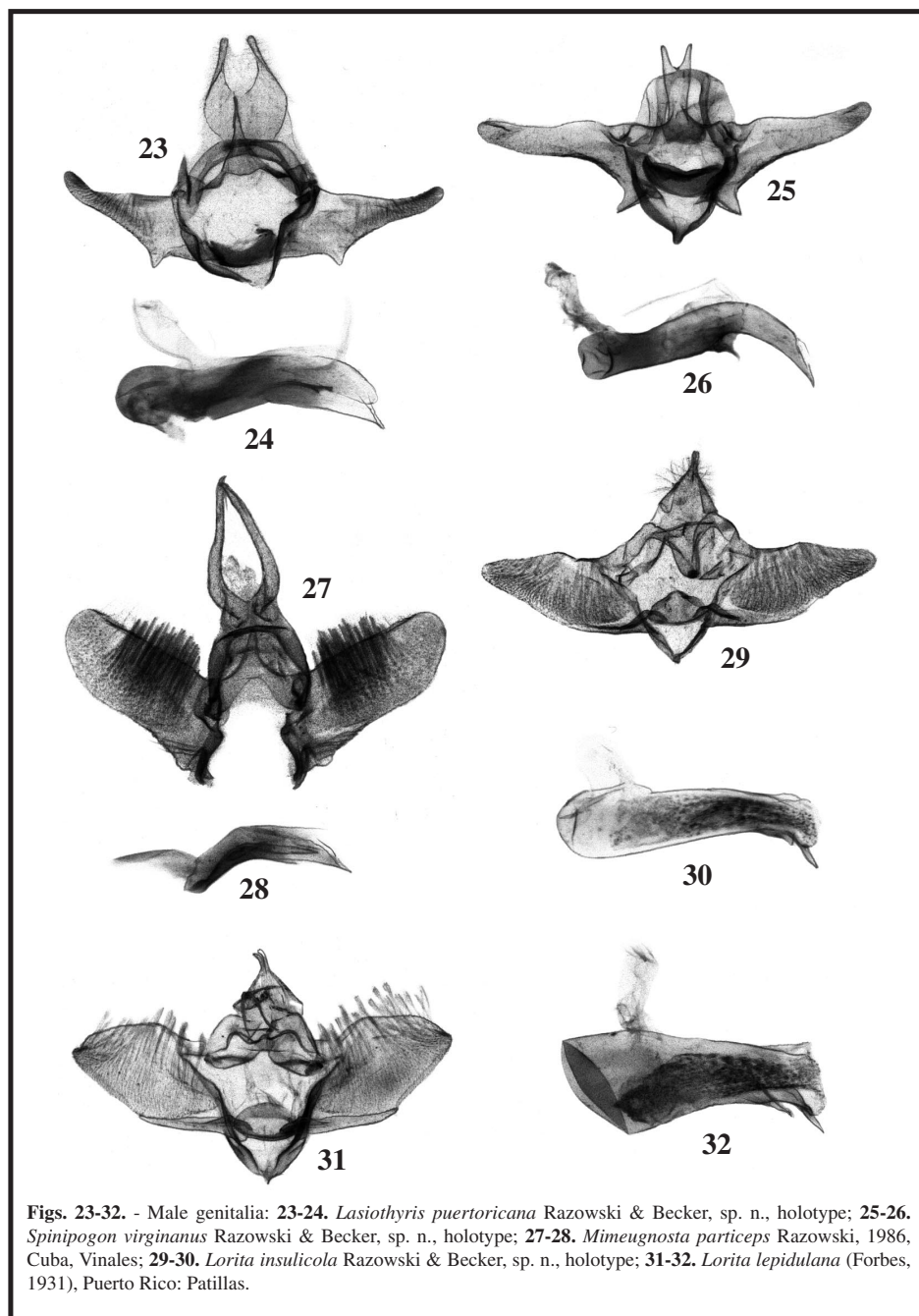
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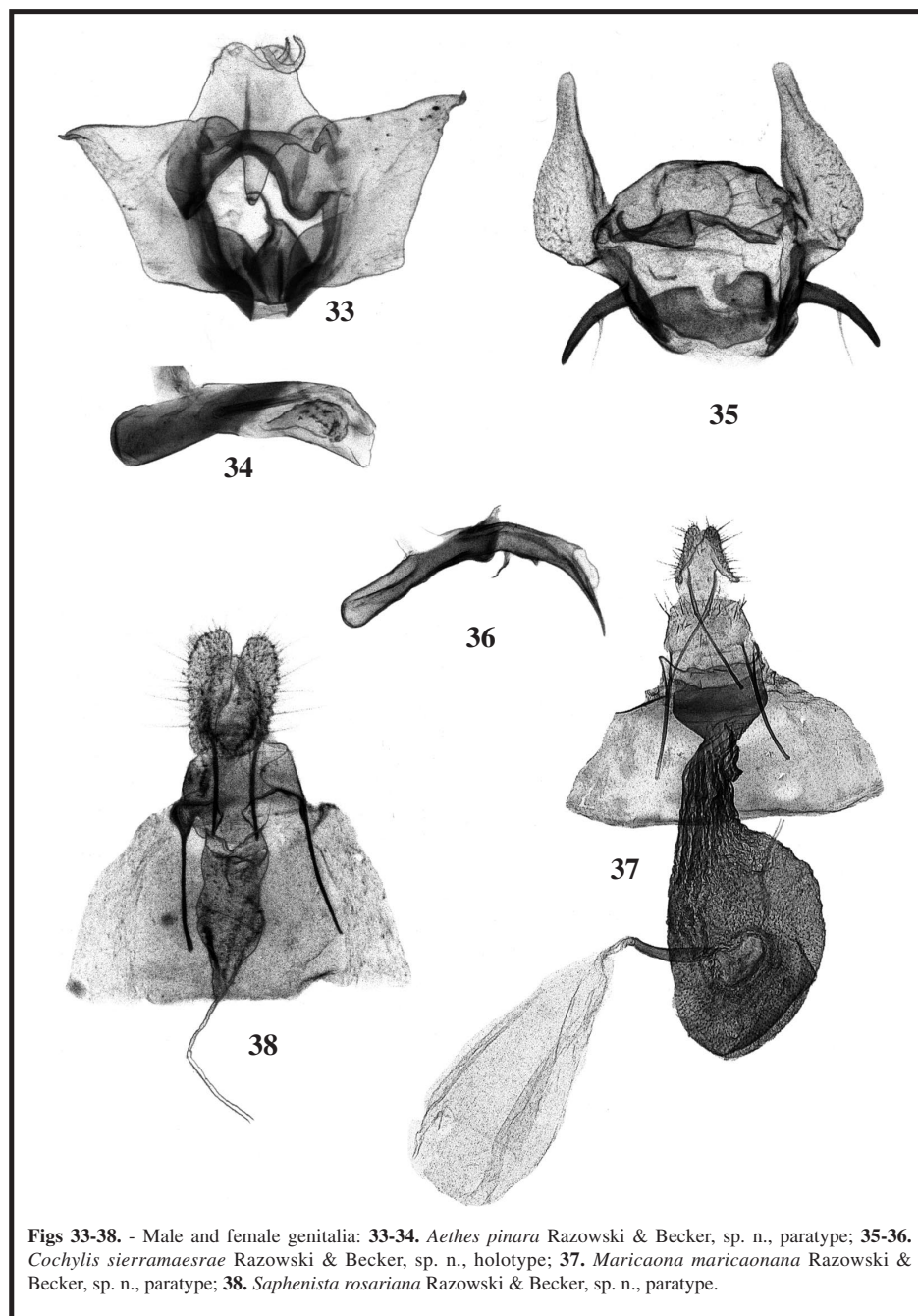
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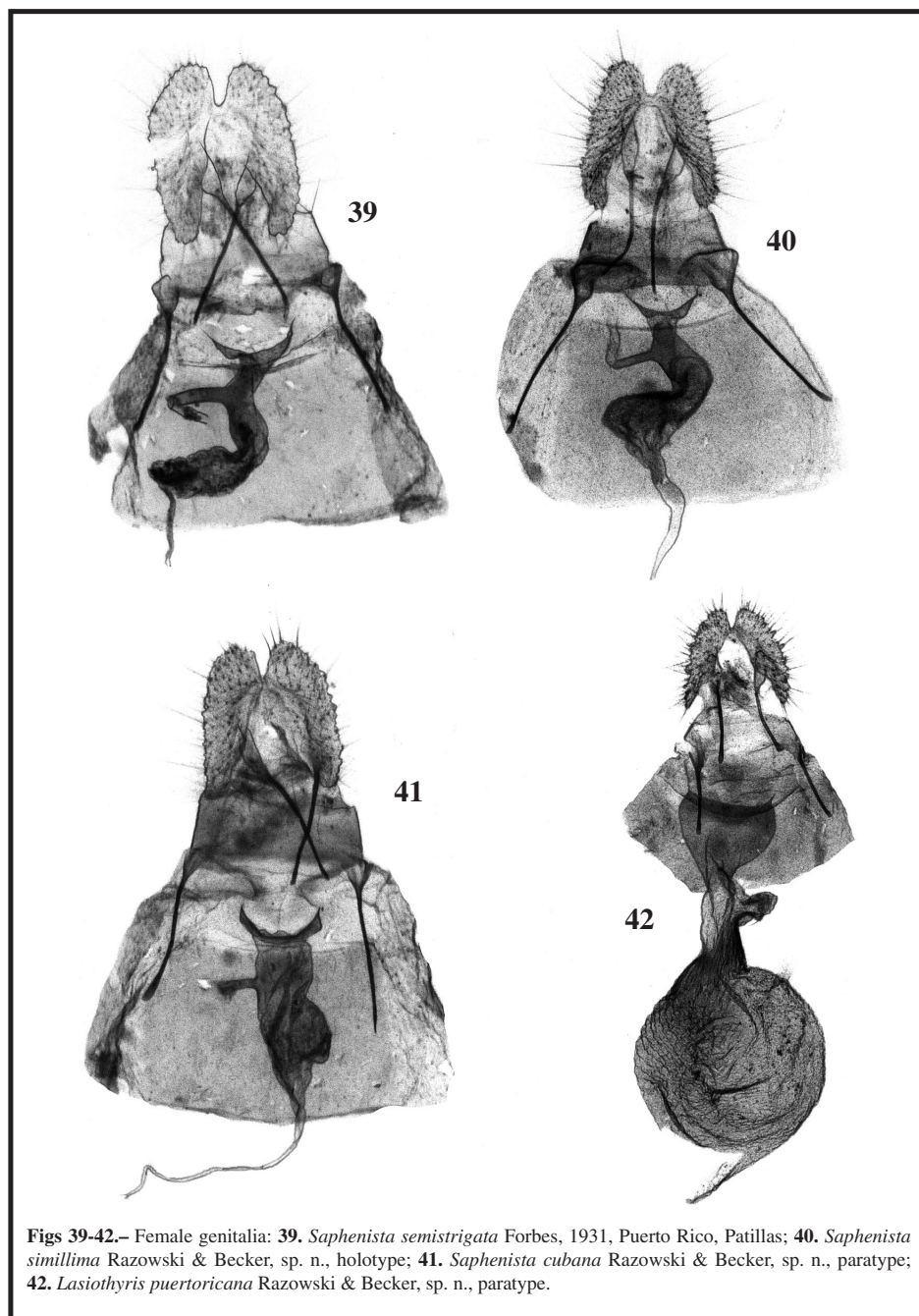
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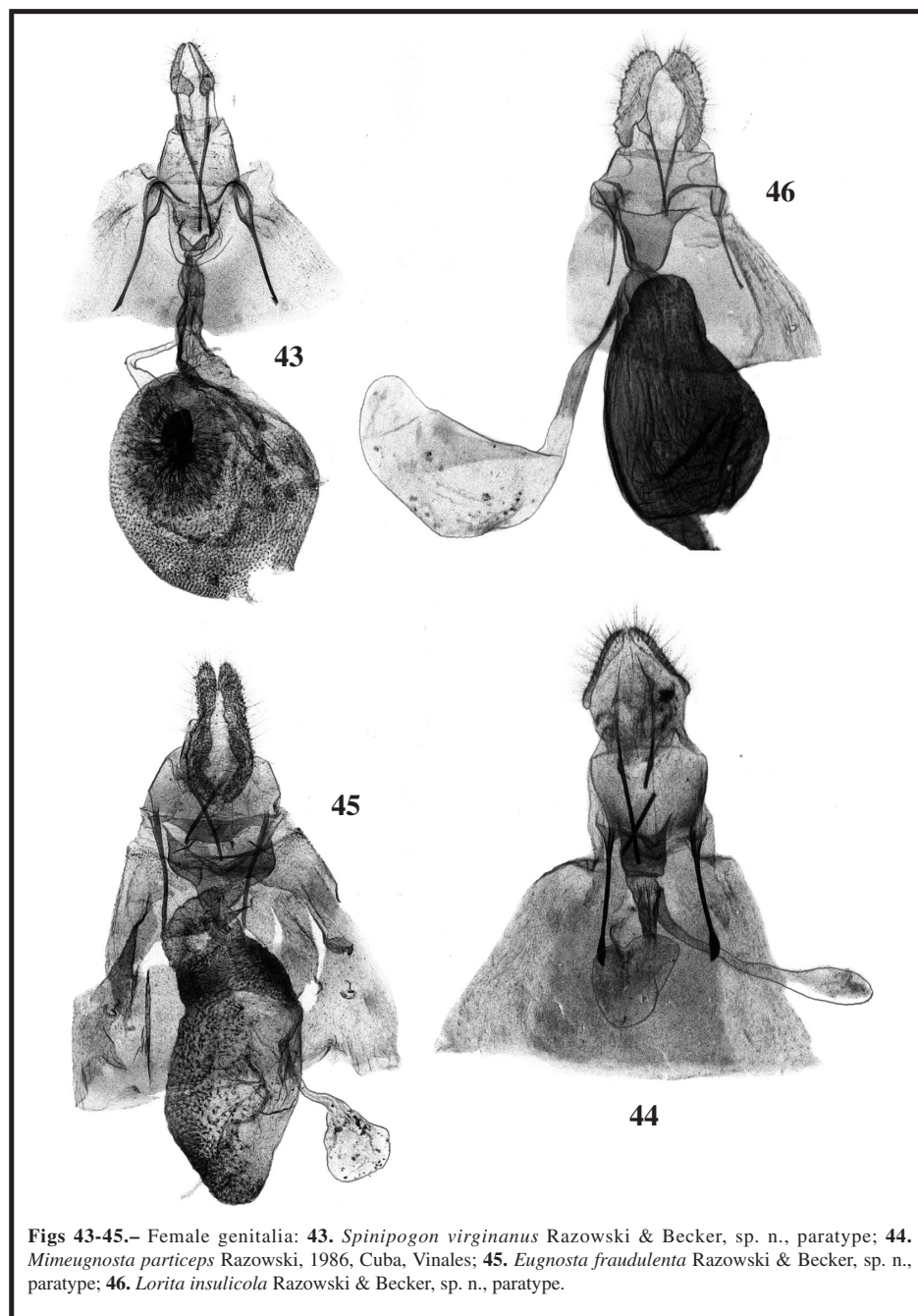
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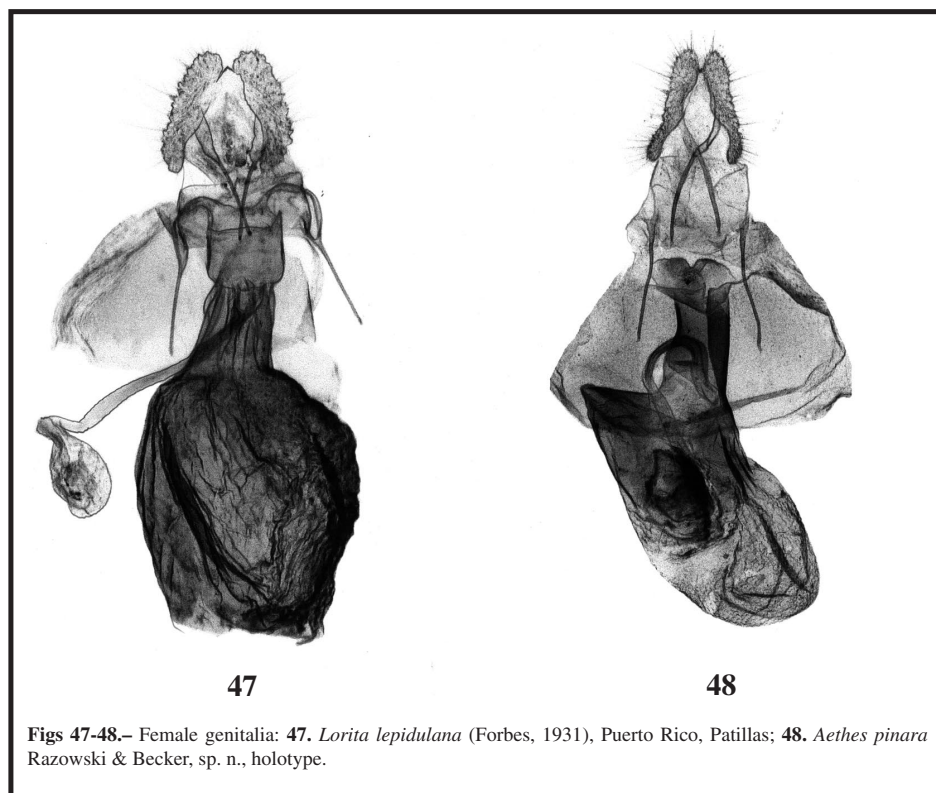
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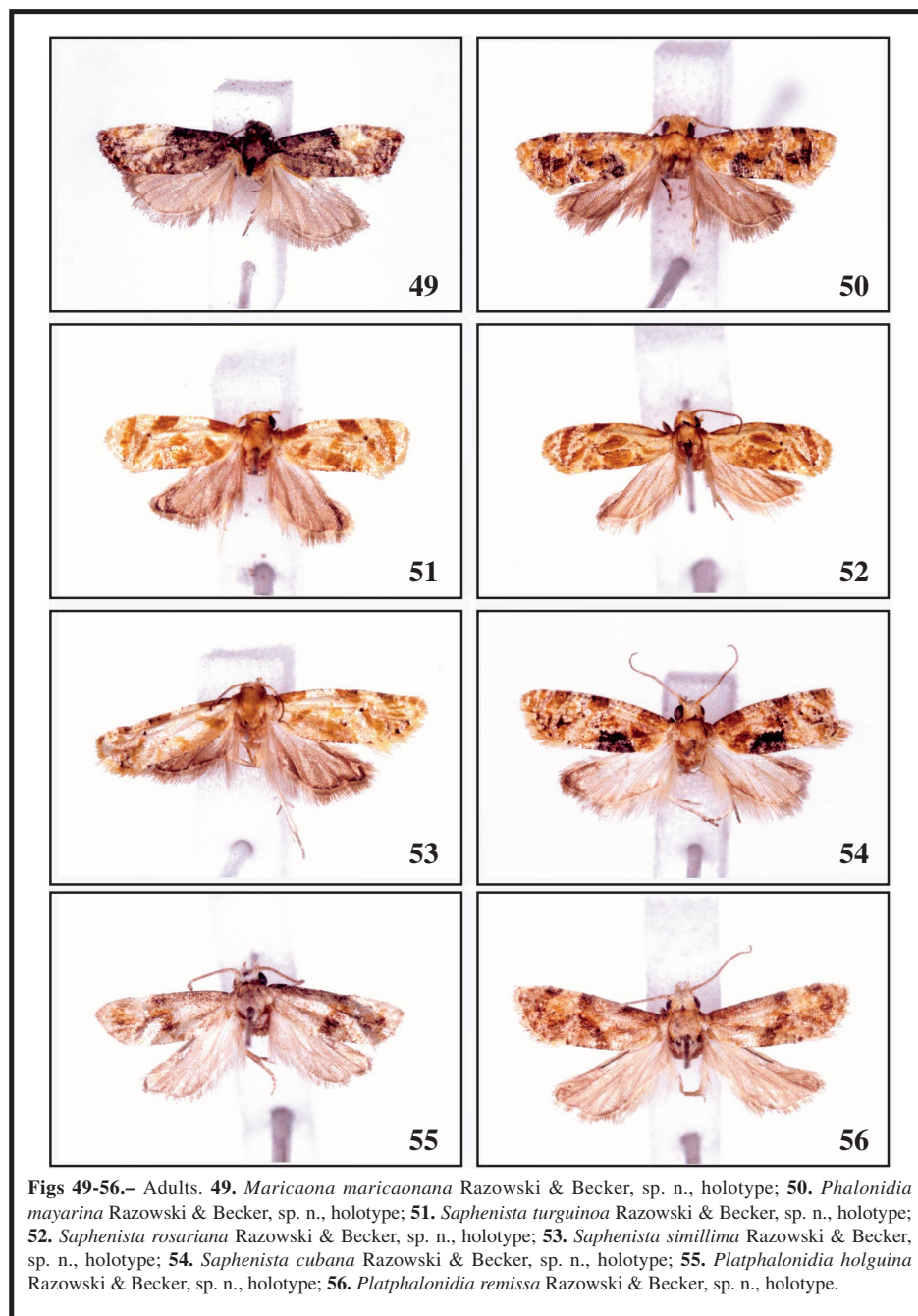
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